<u>REMARKS</u>

This Amendment is filed in response to the Office Action dated May 2, 2007, which has a shortened statutory period set to expire August 2, 2007.

<u>Claims 1-21, 23, 51-76, And 78 Are Patentable Over Husted</u>

Claim 1 recites in part:

activating a signal reception sequence for the detected in-band signal, the signal reception sequence including a selective abort sequence that depends upon the determination that the signal is co-channel interference.

Applicant respectfully submits that Husted fails to teach this limitation.

Husted teaches an automatic gain control system that can quickly differentiate between desired in-band signals from high power out-of-band signals that overlap into the target band. Paragraph 0006. In this system, weak signal detection is used for arriving signals not large enough relative to blockers or noise to cause gain change, whereas strong signal detection is used for larger arriving signals that cause gain drop. Paragraph 0031. Husted can use filtering, windowing, and selective sampling to determine whether an out-of-band (e.g. an adjacent interferer) signal could be overlapping into the target band. Paragraphs 0051, 0052, and 0054. Additionally, Husted can use a two-threshold windowing process during weak signal detection to determine that an in-band signal is a desired signal. Paragraph 0065. However, notably, Husted does not teach an abort sequence.

Because Husted does not disclose a <u>signal reception sequence</u> including a <u>selective abort sequence</u>, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 1.

Claims 2-21 and 23 depend from Claim 1 and therefore are patentable for at least the reasons presented for Claim 1. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 2-21 and 23.

Moreover, Claim 18 recites in part, "aborting the signal reception sequence if a new signal is detected, wherein the new signal is stronger than the detected in-band signal". Claim 19 recites in part, "aborting the signal reception sequence if a new signal is detected, wherein the new signal is stronger than the detected in-band signal by at least a threshold amount". Claim 20 recites in part, "aborting the signal reception sequence if a decrease in an in-band power measurement of the in-band signal exceeds a delta power decrease limit". Claim 21 recites in part, "aborting the signal reception sequence if the in-band signal is determined to include at least one undesirable characteristic". Claim 23 recites in part, "the step of aborting is only applied to the inband signal having packets of type data". Applicant submits that Husted also fails to teach these limitations.

The First Office Action cites paragraphs 0031, 0054, and 0066 as teaching the limitations of Claims 18, 19, 20, 21, and 23. Applicant respectfully traverses these characterizations.

Paragraph 0031 teaches that weak signal detection and strong signal detection (used to identify an in-band signal) are independent and complementary features. As noted previously with respect to paragraph 0031, weak signal detection is used for arriving signals not large enough relative to blockers or noise to cause gain changes, whereas strong signal detection is used for larger arriving signals.

Paragraph 0054 teaches that windowing (i.e. using a value that is half the previous value added to half the subsequent value at the symbol boundary) filtering can reduce the step in

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the in-band power.  Moreover, temporary spikes in the in-band
range can also be nulled out by using the lowest 28 of the 32
samples and thresholds can be adjusted accordingly to compensate
for the reduced power measurement due to the missing four
samples.

Paragraph 0066 teaches that to enable weak signal
detection, a potential detected packet must increase the in-band
signal power by at least a certain amount and that the increase
be at least proportional to any increase in the total signal
power (the signal power being of at least a certain minimum
size).  This enablement embodiment provides extra sensitivity
when a new in-band signal comes in below an interferer or near
the noise floor (which would not trigger strong signal
detection, but should be considered for weak signal detection).

Because paragraphs 0031, 0054, and 0066 do not teach
details of aborting a signal reception sequence, Applicant
requests further reconsideration and withdrawal of the rejection
of Claims 18, 19, 20, 21, and 23.


Claim 51 recites in part:

control logic configured to execute a signal
reception sequence if the in-band power levels of
the digital signal and the filtered digital
signal exceed one or more threshold values, the
signal reception sequence including a selective
abort sequence that depends upon the
determination that the signal is co-channel
interference.

Therefore, Claim 51 is patentable for substantially the
same reasons presented for Claim 1.  Based on those reasons,
Applicant requests reconsideration and withdrawal of the
rejection of Claim 51.

Claims 52-63 depend from Claim 51 and therefore are
patentable for at least the reasons presented for Claim 51.

Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 52-63.

Claim 64 recites in part:

means for activating a signal reception sequence for the detected in-band signal, the signal reception sequence including a selective abort sequence that depends upon the determination that the signal is co-channel interference.

Therefore, Claim 64 is patentable for substantially the same reasons presented for Claim 1. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claim 64.

Claims 65-76 depend from Claim 64 and therefore are patentable for at least the reasons presented for Claim 64. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 65-76.

Moreover, Claim 73 recites in part, "means for aborting the signal reception sequence if a new signal is detected, wherein the new signal is stronger than the detected in-band signal". Claim 74 recites in part, "means for aborting the signal reception sequence if a new signal is detected, wherein the new signal is stronger than the detected in-band signal by at least a threshold amount". Claim 75 recites in part, "means for aborting the signal reception sequence if a decrease in an in-band power measurement of the in-band signal exceeds a delta power decrease limit". Claim 76 recites in part, "means for aborting the signal reception sequence if the in-band signal is determined to include at least one undesirable characteristic". Claim 78 recites in part, "wherein the means for aborting is only applied to the inband signal having packets of type data". Applicant submits that Husted also fails to teach these limitations.

The First Office Action cites paragraphs 0031, 0054, and 0066 as teaching the limitations of Claims 73, 74, 75, 76, and 78. Applicant respectfully traverses these characterizations.

Paragraph 0031 teaches that weak signal detection and strong signal detection (used to identify an in-band signal) are independent and complementary features. As noted previously with respect to paragraph 0031, weak signal detection is used for arriving signals not large enough relative to blockers or noise to cause gain changes, whereas strong signal detection is used for larger arriving signals.

Paragraph 0054 teaches that windowing (i.e. using a value that is half the previous value added to half the subsequent value at the symbol boundary) filtering can reduce the step in the in-band power. Moreover, temporary spikes in the in-band range can also be nulled out by using the lowest 28 of the 32 samples and thresholds can be adjusted accordingly to compensate for the reduced power measurement due to the missing four samples.

Paragraph 0066 teaches that to enable weak signal detection, a potential detected packet must increase the in-band signal power by at least a certain amount and that the increase be at least proportional to any increase in the total signal power (the signal power being of at least a certain minimum size). This enablement embodiment provides extra sensitivity when a new in-band signal comes in below an interferer or near the noise floor (which would not trigger strong signal detection, but should be considered for weak signal detection).

Because paragraphs 0031, 0054, and 0066 do not teach details of the means for aborting a signal reception sequence, Applicant requests further reconsideration and withdrawal of the rejection of Claims 73, 74, 75, 76, and 78.

## Claims 22, 24, 77, And 79 Are Patentable Over Husted And Haverinen

Claims 22 and 24 depend from Claim 1, and Claims 77 and 79 depend from Claim 64. Therefore, Claims 22, 24, 77, and 79 are patentable for at least the reasons presented for Claims 1 and 64. Haverinen fails to remedy the deficiency of Husted with respect to Claims 1 and 64. Specifically, Haverinen fails to teach details of aborting a signal reception sequence (as well as the means for aborting the signal reception sequence). Because neither Husted nor Haverinen disclose or suggest these limitations of Claims 1 and 64, Applicant requests reconsideration and withdrawal of the rejection of Claims 22, 24, 77, and 79.
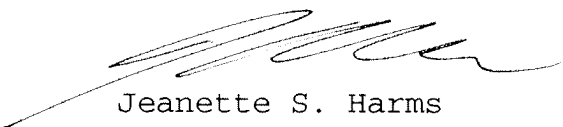
CONCLUSION

Claims 1-24 and 51-79 are pending in the present application. Allowance of these claims is respectfully requested.

If there are any questions, please telephone the undersigned at 408-451-5907 to expedite prosecution of this case.

Respectfully submitted,

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